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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,004	10/23/2000	YASUHIRO MIZUKOSHI	PNDF-00110	8994

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EXAMINER	
KADING, JOSHUA A	
ART UNIT	**PAPER NUMBER**
2661	6

DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/694,004	MIZUKOSHI, YASUHIRO	
	Examiner	Art Unit	
	Joshua Kading	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-9 is/are rejected.

7)☒ Claim(s) 1-9 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 23 October 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4, 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

Claims 1-9 are objected to because of the following informalities:

Claim 1, line 5; and claim 2, line 5 state, "a first unit that includes...". It should read, --a first unit that couples...--

Claim 3, line 4 states, "an access server that includes..." It should read, --an access server that couples...--

Claim 2, line 8; claim 4, line 2; claim 7, lines 2 and 8; claim 8, lines 2 and 8; and claim 9, lines 2 and 8 should have a colon inserted after the word "comprises" for clarity; i.e. --comprises:--

Claim 3, line 17 should have a colon inserted after the work "comprising" for clarity; i.e. --comprising:--.

Claim 5, line 4 and claim 6, line 4 state, "...calculating means is lager..." It should read, --...calculating means is larger...--

Claim 5, lines 10-11 and claim 6, lines 10-11 should have the phrase "...up to said terminal unit." at the end of each claim deleted. It is redundant and confusing. The end of each claim should read as follows --...maximum bandwidth in the communication line.--

Claim 7, line 13; claim 8, line 13; and claim 9, line 13 state, "...and sets a communication line..." It should read, --...and sets up a communication line...--

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 5 and claim 2, line 6 disclose "a first unit that...repeats data..." It is unclear if applicant means to say the data is "repeated" using a repeater or "repeated" using a router (as is shown in the drawings). As is known in the art, a repeater is a layer 1 network device and a router is a layer 3 network device, thus each is quite different in its respective functions and how it processes incoming data.

Claim 3, line 5 states, "an access server that...repeats data..." As with claims 1 and 2, it is unclear if applicant means to say the data is "repeated" using a repeater or "repeated" using a router (as is shown in the drawings).

Claim 3, line 11 states, "repeats data and said echo request..." It is not clear what is doing the repeating. Is it the "one or more routers" or is it something else? If it is the "one or more routers" doing the "repeating", how is this done? That is to say, a router takes data, processes the data for further routing instructions, and then sends the data out to its determined destination. The data exiting the router may or may not look

the same as it did when it entered the router; whereas with a repeater, there is no signal processing. The signal coming out has only had attenuation effects compensated for, nothing about the structure or bits of the data has changed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al. (U.S. Patent 5,367,523).

In regard to claim 1, Chang discloses "a network system, comprising:

a communication line having a predetermined bandwidth (figure 2 where the line between nodes is the communication line; col. 6, lines 35-40 and 61-65 and where it is also known in the art that all communication lines have a predetermined bandwidth by the very nature of the physical properties of the conducting medium and of the network);

a terminal unit that is connected to said communication line and receives data through the communication line (figure 2, element 23);

a first unit that [couples] said terminal unit through said communication line and repeats data to be communicated between said terminal unit and said first unit (figure 2, element 22 where the packet network consists of the network nodes as in figure 1; and

the repeating of data to be communicated between said terminal unit and said first unit is simply the process of communicating data along the line); and

a second unit that sends data to said terminal unit through said first unit according to a bandwidth of said terminal unit that is estimated based on a data delay time of said communication line (figure 2, element 21; col. 8, lines 3-38 where the bandwidth (R_r) is based on a delay, M_r, of the communication line)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al.

In regard to claim 2, Chang discloses "a network system, comprising:

a communication line having a predetermined bandwidth (figure 2 where the line between nodes is the communication line; col. 6, lines 35-40 and 61-65 and where it is also known in the art that all communication line have a predetermined bandwidth by the very nature of the physical properties of the conducting medium and of the network);

a terminal unit that is connected to said communication line and receives data through the communication line (figure 2, element 23);

a first unit that [couples] said terminal unit through said communication line and repeats data to be communicated between said terminal unit and said first unit (figure 2, element 22 where the packet network consists of the network nodes as in figure 1; and the repeating of data to be communicated between said terminal unit and said first unit is simply the process of communicating data along the line); and

a second unit that [comprises:]...a communication line delay calculating means that calculates the data delay time of said communication line (figure 2, element 21; col. 8, lines 3-38 where the bandwidth (R_r) is calculated using a delay, M_r, of the communication line)...and a data sending means that sends data to said terminal unit according to the bandwidth of said communication line stored in said communication line bandwidth storing means corresponding to the data delay time calculated by said communication line delay calculating means (figure 2 where it is clear that element 21 sends data, according to the received calculated bandwidth, to the terminal node; col. 7, lines 15-19)."

However, Chang lacks "...a first measuring means that is connected to said first unit and measures a first round trip time as a data delay time between said terminal unit and said second unit, a second measuring means that measures a second round trip time as a data delay time between said first unit and said second unit... a communication line bandwidth storing means that stores a bandwidth of said communication line corresponding to the data delay time of said communication line..."

Although Chang does not explicitly disclose a "first" and "second" round trip time measuring means or a "bandwidth storing means", he does disclose a total round trip

time measuring means (col. 8, lines 3-38 where the bandwidth (R_r) is calculated using a delay, M_r, of the communication line) and discloses that the sending node, once it has received the calculated bandwidth, transmits at that given bandwidth until instructed to transmit at a different bandwidth (col. 8, lines 34-37); thus implying that the bandwidth is stored within the sending node in order to instruct the unit to transmit at that bandwidth. Having a single measuring means versus two measuring means is a matter of design choice, as both options produce the same result.

It would have been obvious to one with ordinary skill in the art to include a "first" and "second" round trip time measuring means and a storing means for the purpose of obtaining a total round trip time measurement. The motivation being to accurately characterize the communication line and choose appropriate service restraints, such as bandwidth.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joshua Kading
Examiner
Art Unit 2661

JK
February 2, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER